

## CHAPTER 1

Human factors are related with our human capability.

- 5, emotional state

Many conditions affect aviation maintenance, all defined as HUMAN FACTORS:

1, mental state

2, human capabilities

3, human limitation

4, physical state

5, emotional state

80% of Maintenance related incidents are related with Human factors

- Aviation Safety relies on Aviation Maintenance
- Maintenance Errors: parts installed incorrectly, missing parts, check not performed properly
- Errors of Aviation Maintenance Technician (AMT) are difficult to detect, remain LATENT

Many distractions that can affect the work of AMT • The conditions can be Hot, Cold, High, Cramped and with poor lighting.

HF affecting Aircraft Maintenance improve what?

- HF properly managed can improve:

QUALITY,

• AVIATION and WORKING SAFETY,

• Cost reduction,

• Fewer missed deadlines,

• Reduction of work-related injuries,

• Reduction of warranty claims,

• Reduction of maintenance error related events

- Dirty Dozen: know the 12 elements and what they mean.

Human factors, the 12 dirty dozen

1, lack of communication: not communicating with the other shift

2, complacency: not to be careful or not doing anything if you see something go wrong. don't care about the wrong things.

3, lack of knowledge: don't have enough knowledge.

4, distraction: people talking to you noise etc.

5, lack of teamwork: not able to have good teamwork

6, fatigue: sick, tired, did not have enough sleep, etc.

7, lack of resources: need to have the exact spare part.

8, time pressure: not enough time to do the job

9, lack of assertiveness: to know what to do

10, stress: domestic stress or work-related stress.

11, lack of awareness: to know what you're doing

12, norms: do not follow the regulations

- MURPHY'S LAW: what it means, FAIL SAFE/IDIOT PROOF/GRAVE'S LAW

Murphy's Law: "Whatever Can Go Wrong, Will Go Wrong "

Take the worst scenario assume the worst. And be prepared

Ex: I washed my car yesterday and it rained the afternoon.

If Idiot Proof, then a better idiot will be created, Grave's Law

Factors affecting AMT 's performance:

Poor instruction

Loud noises

Incomplete or incorrect documentation

Snow

Poor communication

Lack of tools and equipment

Poor training

Personal life problem

Fatigue